

Declaration and Power of Attorney For Patent Application

特許出願宣言書及び委任状

Japanese Language Declaration

日本語宣言書

下記の氏名の発明者として、私は以下の通り宣言します。

As a below named inventor, I hereby declare that:

私の住所、私書箱、国籍は下記の私の氏名の後に記載された通りです。

My residence, post office address and citizenship are as stated next to my name.

下記の名称の発明に関して請求範囲に記載され、特許出願している発明内容について、私が最初かつ唯一の発明者（下記の氏名が一つの場合）もしくは最初かつ共同発明者であると（下記の名称が複数の場合）信じています。

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

AUTOMATIC TRANSMISSION AND VEHICLE

上記発明の明細書（下記の欄で×印がついていない場合は、本書に添付）は、

The specification of which is attached hereto unless the following box is checked:

☐ __月__日に提出され、米国出願番号または特許協定条約国際出願番号を____とし、
(該当する場合) _____に訂正されました。

☐ was filed on
as United States Application Number or
PCT International Application Number
_____ and was amended on
_____ (if applicable).

私は、特許請求範囲を含む上記訂正後の明細書を検討し、内容を理解していることをここに表明します。

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

私は、連邦規則法典第37編第1条56項に定義されるとおり、特許資格の有無について重要な情報を開示する義務があることを認めます。

I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, Section 1.56.



23911

PATENT TRADEMARK OFFICE

05986070-110701

Japanese Language Declaration (日本語宣言書)

私は、米国法典第35編119条(a)-(d)項又は365条(b)項に基づき下記の、米国以外の国の少なくとも一カ国を指定している特許協力条約365(a)項に基づき国際出願、又は外国での特許出願もしくは発明者証の出願についての外国優先権をここに主張するとともに、優先権を主張している、本出願の前に出願された特許または発明者証の外国出願を以下に、枠内をマークすることで、示している。

Prior Foreign Application(s)

外国での先行出願

<u>2001-26586</u>	<u>Japan</u>
(Number)	(Country)
(番号)	(国名)
<u>2000-345459</u>	<u>Japan</u>
(Number)	(Country)
(番号)	(国名)

私は、第35編米国法典119条(e)項に基づいて下記の米国特許出願規定に記載された権利をここに主張いたします。

<u> </u>	<u> </u>
(Application No.)	(Filing Date)
(出願番号)	(出願日)

私は、下記の米国法典第35編120条に基づいて下記の米国特許出願に記載された権利、又は米国を指定している特許協力条約365条(c)に基づき権利をここに主張します。また、本出願の各請求範囲の内容が米国法典第35編112条第1項又は特許協力条約で規定された方法で先行する米国特許出願に開示されていない限り、その先行米国出願書提出日以降で本出願書の日本国内または特許協力条約国際提出日までの期間中に入手された、連邦規則法典第37編1条56項で定義された特許資格の有無に関する重要な情報について開示義務があることを認識しています。

<u> </u>	<u> </u>
(Application No.)	(Filing Date)
(出願番号)	(出願日)

<u> </u>	<u> </u>
(Application No.)	(Filing Date)
(出願番号)	(出願日)

私は、私自身の知識に基づいて本宣言書中で私が行なう表明が真実であり、かつ私の入手した情報と私の信じることに基づき表明が全て真実であると信じていること、さらに故意になされた虚偽の表明及びそれと同等の行為は米国法典第18編第1001条に基づき、罰金または拘禁、もしくはその両方により処罰されること、そしてそのような故意による虚偽の声明を行えば、出願した、又は既に許可された特許の有効性が失われることを認識し、よってここに上記のごとく宣誓を致します。

I hereby claim foreign priority under Title 35, United States Code, Section 119 (a)-(d) or 365(b) of any foreign application(s) for patent or inventor's certificate, or 365(a) of any PCT international application which designated at least one country other than the United States, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate, or PCT International application having a filing date before that of the application on which priority is claimed.

Priority Not Claimed
優先権主張なし

<u>2/February/2001</u>	<input type="checkbox"/>
(Day/Month/Year Filed)	
(出願年月日)	
<u>8/November/2000</u>	<input type="checkbox"/>
(Day/Month/Year Filed)	
(出願年月日)	

I hereby claim the benefit under Title 35, United States Code, Section 119(e) of any United States provisional application(s) listed below.

<u> </u>	<u> </u>
(Application No.)	(Filing Date)
(出願番号)	(出願日)

I hereby claim the benefit under Title 35, United States Code, Section 120 of any United States application(s), or 365(c) of any PCT international application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of Title 35, United States Code Section 112, I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, Section 1.56 which became available between the filing date of the prior application and the national or PCT international filing date of application.

<u> </u>
(Status: Patented, Pending, Abandoned)
(現況: 特許許可済、係属中、放棄済)

<u> </u>
(Status: Patented, Pending, Abandoned)
(現況: 特許許可済、係属中、放棄済)

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Japanese Language Declaration (日本語宣言書)

委任状： 私は下記の発明者として、本出願に関する一切の手続きを米特許商標局に対して遂行する弁理士または代理人として、下記の者を指名いたします。(弁理士、または代理人の氏名及び登録番号を明記のこと)

POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith (list name and registration number)

Martin Fleit, Reg. No. 16,900; Herbert I. Cantor, Reg. No. 24,392; James F. McKeown, Reg. No. 25,406; Donald D. Evenson, Reg. No. 26,160; Joseph D. Evans, Reg. No. 26,269; Gary R. Edwards, Reg. No. 31,824; Jeffrey D. Sanok, Reg. No. 32,169; Richard R. Diefendorf, Reg. No. 32,390; and Paul A. Schnose, Reg. No. 39,361

書類送付先

Send Correspondence to:

Crowell & Moring LLP

Evenson, McKeown, Edwards & Lenehan

Intellectual Property Law Group

Suite 700, 1200 G St., N.W., Washington, D.C. 20005

直接電話連絡先：(氏名及び電話番号)

Direct Telephone Calls to: *(name and telephone number)*

Telephone: (202)628-8800

Fax: (202)628-8844

唯一または第一発明者	Full name of sole or first inventor Takashi OKADA	
発明者の署名	日付	Inventor's signature <i>Takashi Okada</i> Date <i>07/25/2001</i>
住所	Residence Hitachi, Japan	
国籍	Citizenship Japan	
私書箱	Post Office Address c/o Hitachi, Ltd., Intellectual Property Group New Marunouchi Bldg. 5-1, Marunouchi 1-chome, Chiyoda-ku, Tokyo 100-8220, Japan	

(第二以降の共同発明者についても同様に記載し、署名をすること)

(Supply similar information and signature for second and subsequent joint inventors.)

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

第二共同発明者	Full name of second joint inventor, if any Toshimichi MINOWA
第二共同発明者の署名 日付	Second inventor's signature Date <i>Toshimichi Minowa</i> 08/02/2001
住所	Residence Mito, Japan
国籍	Citizenship Japan
私書箱	Post Office Address c/o Hitachi, Ltd., Intellectual Property Group New Marunouchi Bldg. 5-1, Marunouchi 1-chome, Chiyoda-ku, Tokyo 100-8220, Japan
第三共同発明者	Full name of third joint inventor, if any Mitsuo KAYANO
第三共同発明者の署名 日付	Third inventor's signature Date <i>Mitsuo Kayano</i> 07/25/2001
住所	Residence Hitachi, Japan
国籍	Citizenship Japan
私書箱	Post Office Address c/o Hitachi, Ltd., Intellectual Property Group New Marunouchi Bldg. 5-1, Marunouchi 1-chome, Chiyoda-ku, Tokyo 100-8220, Japan
第四共同発明者	Full name of fourth joint inventor, if any Tatsuya OCHI
第四共同発明者の署名 日付	Fourth inventor's signature Date <i>Tatsuya Ochi</i> 07/25/2001
住所	Residence Hitachi, Japan
国籍	Citizenship Japan
私書箱	Post Office Address c/o Hitachi, Ltd., Intellectual Property Group New Marunouchi Bldg. 5-1, Marunouchi 1-chome, Chiyoda-ku, Tokyo 100-8220, Japan
第五共同発明者	Full name of fifth joint inventor, if any Hiroshi SAKAMOTO
第五共同発明者の署名 日付	Fifth inventor's signature Date <i>Hiroshi Sakamoto</i> 07/25/2001
住所	Residence Hitachi, Japan
国籍	Citizenship Japan
私書箱	Post Office Address c/o Hitachi, Ltd., Intellectual Property Group New Marunouchi Bldg. 5-1, Marunouchi 1-chome, Chiyoda-ku, Tokyo 100-8220, Japan

(第六以降の共同発明者についても同様に記載し、署名をすること)

(Supply similar information and signature for sixth and subsequent joint inventors.)

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

第六共同発明者	Full name of sixth joint inventor, if any Hiroshi KUROIWA	
第六共同発明者の署名	日付	Sixth inventor's signature Date <i>Hiroshi Kuroiwa</i> 07/25/2001
住所	Residence Hitachi, Japan	
国籍	Citizenship Japan	
私書箱	Post Office Address c/o Hitachi, Ltd., Intellectual Property Group New Marunouchi Bldg. 5-1, Marunouchi 1-chome, Chiyoda-ku, Tokyo 100-8220, Japan	
第七共同発明者	Full name of seventh joint inventor, if any Naoyuki OZAKI	
第七共同発明者の署名	日付	Seventh inventor's signature Date <i>Naoyuki Ozaki</i> 07/25/2001
住所	Residence Hitachinaka, Japan	
国籍	Citizenship Japan	
私書箱	Post Office Address c/o Hitachi, Ltd., Intellectual Property Group New Marunouchi Bldg. 5-1, Marunouchi 1-chome, Chiyoda-ku, Tokyo 100-8220, Japan	
第八共同発明者	Full name of eighth joint inventor, if any	
第八共同発明者の署名	日付	Eighth inventor's signature Date
住所	Residence	
国籍	Citizenship	
私書箱	Post Office Address	
第九共同発明者	Full name of ninth joint inventor, if any	
第九共同発明者の署名	日付	Ninth inventor's signature Date
住所	Residence	
国籍	Citizenship	
私書箱	Post Office Address	

(第十以降の共同発明者についても同様に記載し、署名をすること)

(Supply similar information and signature for tenth and subsequent joint inventors.)

ratio can be obtained by engaging assist mechanism 140 when running by using the 3rd gear. Therefore, the decrease in the number of the 3rd drive gears becomes possible in this case, and the number of the parts can be decreased. Further, lightening can be obtained as a result, the inertia of the body of revolution can be reduced, and the load to the clutch can be decreased.

【0106】

Next, the transmission according to the eighth embodiment of the present invention will be explained with reference to Fig.21. Fig.21 is a view showing the whole configuration of the automatic transmission according to an eighth embodiment of the present invention. Fig.21 is another embodiment in which the transmission is used for the front engine rear drive.

【0107】

Fig.21 shows the example in which the transmission for the front engine front drive of Fig.19 is applied for the front engine rear drive. In this example, assist output gear 131 and assist input gear 130 arranged in assist axis 104 is arranged to engage with a gear provided on 1st axis (input shaft) 102. Also in this case, the torque from 1st axis 102 (input shaft) to the 2nd axis 103 (output shaft) while shifting is transferred through a gear (2nd drive gear 112 in Fig.20) engaged with 1st axis (input shaft) 102, a gear (2nd driven gear 122 in Fig.20) which runs idle freely with respect to 2nd axis (counter axis) 103 engaged said gear, assist input gear 130 provided on assist axis 104, assist output gear 131, assist mechanism 140, and 3rd driven gear 123 engaged with the 2nd axis (counter axis) 103. In this case, even when there is no room of arrangement in the lower part of the transmission, it is possible to apply as well as the case in the FF vehicle of Fig.19. In addition, the miniaturization of transmission can be achieved by sharing reverse idol axis and assist axis 104.

【0108】

The transmission according to the ninth embodiment of the present invention will be explained with reference to Fig.22. Fig.22 is another embodiment in which motor generator 200 is installed.

【0109】

In Fig.22, motor generator 200 is provided in the transmission according to the embodiment of Fig.18 and 20 previously shown. In this transmission, the gear with the same number of teeth and diameter as 3rd drive gear is applied to assist output gear 131 arranged on assist axis 104. 3rd drive gear 113 arranged on 1st axis (input shaft) 102 is removed. The torque transfer while shifting is as has already described. Further, the running of 3rd gear becomes the same state as the running state of the 3rd speed gear by engaging assist mechanism 140. Therefore, the 3rd drive gear can be removed by adopting the configuration shown in Fig.22, and the lightening of transmission can be obtained as a result, the inertia of the body of revolution can be reduced, and the cost can be reduced.

【0110】

There is an effect that when the torque transfer from 1st axis 102(input shaft) to the 2nd axis 103(output shaft)while shifting is done by the 3rd gear gear ratio, the torque transfer route while shifting and the torque transfer route of 3rd gear under running can be shared, and the number of gears can be suppressed to the minimum. Oppositely, there is an effect that by setting separately the torque transfer route while shifting and the torque transfer route while normally running, the free setting of the amount of the torque transfer while shifting becomes possible.

【0111】